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Congenital Esophageal Stenosis

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complete apposition. No attempt was made to splint or confine the limb.

In human orthopedic surgery the screw, or pin, is placed within the bone marrow cavity of the surgical neck. In the dog, however, the surgical neck is so small that the operators chose to place the screw above the area going across the trochanteric fossa as shown in Figure 1. This was done because the bone marrow cavity in the neck of the femur was not much larger than the screw, and it was feared that the blood supply might be sufficiently impaired to cause necrosis of the part.

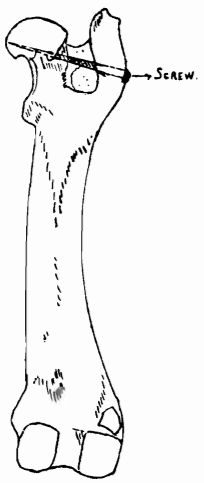

Fig. 1. Use of screw to repair a fractured femur

The postoperative recovery was most satisfactory with the exception of a temperature rise to 103.0°F. on the third day. This corrected itself in 12 hours with the aid of 20 grains of sulfanilamide per orum.

The wound healed without swelling, tenderness, or suppuration and the patient was released to the owner at the end of two weeks. Upon examination five weeks postoperatively, the animal was found to be using the limb at a slow walk, but carrying it at a faster gait. The muscles of the limb were somewhat atrophied, but the owner reported this was slowly correcting itself.

The prominent swelling at the trochanter major was still present but no tenderness, crepitation, or disfunction could be detected.

This is the second case of this type successfully repaired at the Small Animal Clinic, Des Moines, Iowa. The other case was a 10-month-old female Airedale. This dog made an almost perfect recovery. The fracture was of five weeks duration when repair was attempted. In this case the enlarged trochanter major diminished to normal size at the end of 90 days, causing the screw to protrude laterally ¼ of an inch. When this occurred a small incision was made through the skin over the screw head and it was removed without difficulty with the aid of a local anesthetic.

It is the belief of the operators that the swelling will soon diminish, in the case of the Wire-haired Terrier, and the screw will have to be removed.

—T. B. Ludgate, spring '43
Reiser Small Animal Clinic

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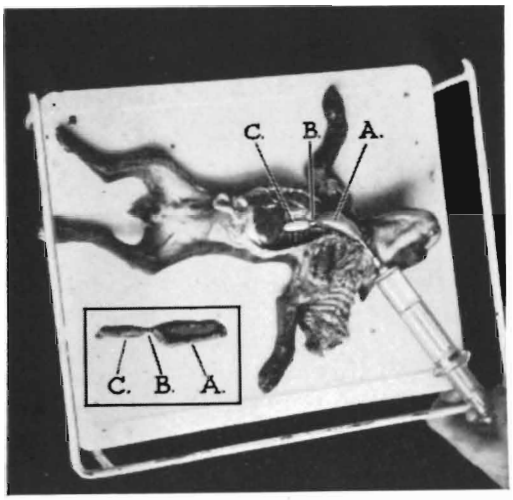
3 **Congenital Esophageal Stenosis.** On July 9, 1943, a 9-week-old Boston Terrier female was presented at the Stange Memorial Clinic with a history of a good appetite but repeated vomition for the past week. This symptom became evident after the diet was changed from liquid to solid. Extreme emaciation and dehydration were apparent.

Upon observation it was noted that the vomitus was not admixed with digestive juices. It was tentatively diagnosed as congenital stenosis of the esophagus. An unsuccessful attempt was then made to pass a stomach tube. Allowing the stomach tube to remain in its abnormal position in the esophagus, a fluoroscope was employed. It revealed that the stomach tube had passed only as far as the cardiac area and had then turned back upon itself. This not only confirmed the diagnosis of stenosis but also revealed a diverticulum anterior to the stenosis. Pressure of the retained food

masses had evidently caused paralysis or atony of the muscular wall, resulting in the diverticulum.



Dog showing esophogeal stenosis.
A. Diverticulum B. Stenosis C. Normal

The owner was notified that surgical treatment would inevitably be unsuccessful and permission to destroy the patient was obtained. Euthanasia was performed by means of nembutal administered intravenously. The accompanying photographs illustrate the post mortem findings.

—Virgil Reinhart, '44

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4 **Purpura Hemorrhagica of the Horse.** Purpura hemorrhagica of the horse is an acute, non-contagious disease probably arising from septic bacterial intoxication. It is characterized by extensive edematous swellings of the subcutaneous tissue and petechiae on the mucous membranes and internal organs.

The disease usually occurs sporadically. It develops usually as a secondary infection in connection with diseases in which suppuration or necrosis occur in some part of the body. The exact etiologic agent is unknown although several theories have been advanced. One theory is that injury to the walls of the blood vessels is caused by a toxin circulating in the blood which reduces their elasticity and power of resistance. Another explanation is that a primary change in the blood impairs the nutrition of the vascular walls and causes a watery consistency of the blood. The possibility of anaphylactic origin cannot be disregarded as shown in experiments by Marek. Hutyra and Marek[1] state that the condition follows cases of fistula of the withers and poll evil. In fifteen years experience at Iowa State College where these conditions are very common, there has never been complication with purpura unless secondary influenza was also present. A great percentage of the cases of purpura have followed influenza at the Iowa State College Clinic. The disease is most common in spring and early summer. Horses under two years old are seldom affected.

A seven-year-old black Percheron mare was presented at the Stange Memorial Clinic on April 15, 1943. The history given included an abortion a month previously, followed by an attack of influenza a few days later. Swellings had been observed on the animal's body for a week prior to its hospitalization. The temperature was 102.8° F., the pulse rate 78 per minute, and respirations 40 per minute. The nose and lips of the patient were swollen to such an extent that prehension was impaired and the nasal mucosa could not be examined through the external nares. Interference in locomotion was present because of the swellings of the extremities. Urticaria-like swellings were seen on the lower abdomen and the chest was swollen. The skin over the swellings was tense and the surface could be pitted only with difficulty. A yellowish serous fluid was exuding from the swellings on the hind legs and drying in crusts in the hair. The condition was diagnosed as purpura hemorrhagica.

Treatment consisted of transfusions of citrated equine blood intravenously at the rate of 250 cc. per day for 5 days followed by 150 cc. per day for 4 days. A solution of glycerine and iodine, equal parts, was used on the affected areas of the hind legs.

Signs of improvement were noted during the first four days. The pulse rate